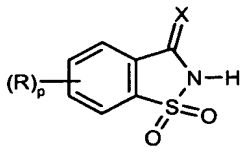
CLAIMS

1. A process for the synthesis of an oligonucleotide in which an oligonucleotide is assembled on a swellable solid support using the phosphoramidite approach in the presence of an activator, wherein the activator is not tetrazole or a substituted tetrazole.

2. A process according to claim 1, wherein the activator is selected from the group consisting of pyridinium, imidazolinium and benzimidazolinium salts; benzotriazole and derivatives thereof; and saccharin or a saccharin derivative.

3. A process according to claim 2, wherein the activator has the general chemical formula:



wherein p is 0 or an integer from 1 to 4;

R for each occurrence is a substituent, or two adjacent R groups taken together with the carbon atoms to which they are attached form a six membered saturated or unsaturated ring; and

X is O or S.

4. A process according to claim 3, wherein the activator is the N-methylimidazole, pyridine or 3-methylpyridine salt of saccharin.

5. A process according to any preceding claim, wherein the swellable support comprises functionalised polystyrene, partially hydrolysed polyvinylacetate or poly(acrylamide).

6. A process according to any preceding claim, wherein the process comprises coupling a nucleoside phosphoramidite with a nucleoside or oligonucleotide comprising a free hydroxy group.

7. A process according to claim 6, wherein the nucleoside phosphoramidite is a deoxyribonucleside-3'-phosphoramidite or ribonucleside-3'-phosphoramidite.

8. A process according to claim 6 or 7, wherein the nucleoside or oligonucleotide comprising a free hydroxy group comprises a free 5'-hydroxy group.

9. A process according to any one of claims 6 to 8, wherein the nucleoside or oligonucleotide comprising a free hydroxy group is attached to the solid support by a cleavable linker.

10. A process according to any preceding claim, wherein the process employs a solvent which swells the solid support.

11. A process according to claim 10, wherein the solvent is acetonitrile, dimethylformamide, N-methylpyrrolidinone, dichloromethane, tetrahydrofuran or pyridine.

12. A process according to any preceding claim, wherein the assembled oligonucleotide is cleaved from the solid support.